



OptimAir[®] MM 2K PAPR with Type HE OptiFilter[®] XL Cartridge

Features

- Lightweight, compact design
- Rechargeable Nickel Metal Hydride (NiMH) Battery for 8 hours' continuous use
- Water-resistant battery
- Standard dual-rate smart charger
- Designed for easy decontamination
- Water-resistant HEPA filter
- Choice of Advantage[®] 3000, Ultravue[®] or Ultra Elite[®] Facepiece
- Meets impact and penetration requirements of ANSI Z87.1 (eye and face protection standard)

Description

The OptimAir MM 2K Powered Air-Purifying Respirator (PAPR) is especially suited for use by workers in abatement, nuclear, lead, and other industries that have hazardous particulate environments. It has a mask-mounted motor/blower with HEPA filter for protection against particulate contaminants, such as dusts, fumes, mists, and radionuclides. Because it does not have a breathing tube, the unit is more compact than other PAPRs, thus enhancing user maneuverability and simplifying decontamination.

The PAPR filters particulates and provides a constant flow of respirable air directly to the facepiece. Air pressure inside the facepiece is higher than the air pressure in the surrounding atmosphere. Therefore, in the event of a small leak in the face-to-facepiece seal, air will flow from inside the facepiece to the outside. This constant flow of air also provides a cooling effect on the user's face.

Designed for high performance, the facepiece, motor/blower, and filter of the OptimAir MM 2K PAPR combine to produce air flows higher than comparable units with mask-mounted motor/blowers. All components are designed for long life and low maintenance.



Advantage 3000/Ultravue/Ultra Elite Facepieces:

Whether you choose the Advantage 3000, Ultravue or Ultra Elite, all three are available in three sizes to accommodate a wide range of users. The Advantage 3000 has a silicone rubber facepiece, while the Ultravue and Ultra Elite Facepieces are available in a choice of silicone or Hycar™ rubber. All facepieces have a scratch-resistant polycarbonate lens that provides a wide field of vision. Optional lens cover accessories provide even greater scratch resistance (see page 4). All three facepieces feature an inhalation check valve and exhalation valve that work together to help prevent exhaled air from entering and contaminating the motor/blower assembly.

Motor/Blower Assembly:

The motor/blower assembly, which threads onto the facepiece inlet, is compact and lightweight so as not to obstruct vision or impair facepiece fit. The motor is designed for long life and low maintenance.



NiMH Battery Pack:

The sealed, lightweight NiMH battery pack weighs only 12.5 oz. (360 grams). The low-profile unit fits closely to the wearer's body. In fact, the battery pack is small enough to fit in



most pockets. Besides providing a compact and lightweight battery pack, NiMH batteries do not have the "memory effect" that is associated with NiCad batteries. The power source delivers 4.8 volts (nominal) to the motor/blower

and is designed to operate over 8 hours under most operating conditions. The battery pack is water-resistant and is designed for easy shower decontamination. The battery pack is

connected to the motor/blower with a heavy-gauge coated power cable. The cable includes a lockable connector to the motor/blower and battery pack.

Dual-Rate Smart Charger

Each OptimAir MM 2K PAPR is supplied with a dual-rate smart charger that will charge a fully discharged battery in less than 3 hours. A single, 3-color LED indicates battery condition: fast charge, fully charged, or battery fault condition. After the battery reaches full charge, the charger switches to a trickle-charge to prevent overcharging the battery. The smart charger can be connected indefinitely to the battery pack without damaging the battery. The compact battery charger has a rated service of 100-264 volts @ 50/60 Hz.

Type HE OptiFilter Cartridge:

The Type HE OptiFilter Cartridge is a high-efficiency particulate air (HEPA) filter. A single, high-performance OptiFilter XL Cartridge fits onto the motor/blower when the PAPR is used. The lightweight filter has an unrestricted air-inlet opening that helps prevent gross debris from clogging the filter.

The Type HE OptiFilter XL Cartridge may be equipped with the OptiFilter XL Prefilter/Cover. To extend the life of the OptiFilter XL Cartridge, the prefilter/cover is an economical three-piece assembly that protects the cartridge from contaminants such as water spray and gross ACM. Particulate matter that does reach the prefilter is trapped before reaching the main cartridge filter. When loaded with



particulates, the entire Prefilter/Cover Assembly can be discarded and replaced. Or, for maximum savings, discard and replace only the inexpensive prefilter.

For users working with asbestos, the Type HE OptiFilter XL Cartridge may also be equipped with an optional storage plug that has a special one-way valve. The plug is used during exiting and reentering containment to help prevent gross asbestos debris from falling out of the cartridge. The plug also helps to prevent shower water from reaching the filter media.

Waist Belts:

OptimAir MM PAPR's are supplied with a clear polyvinylchloride (PVC) belt with a slide-through friction buckle. The belt, designed for easy decontamination and comfort, accommodates waists up to 48 inches. Optional belts are listed on page 4.



Ordering Information

Complete OptimAir MM 2K PAPP Assemblies

All assemblies include: motor/blower, NiMH battery, dual-rate battery charger, cable, one Type HE OptiFilter XL Cartridge, belt, and choice of Advantage 3000, Ultravue or Ultra Elite Facepiece.

	Advantage 3000 PAPP		
	Small	Medium	Large
with Rubber Harness	10034152	10034150	10034151
with Advantage Harness	10034155	10034153	10034154

Material	Ultravue PAPP			Ultra Elite PAPP		
	Small	Medium	Large	Small	Medium	Large
Black Silicone	10023881	10023859	10023880	10023886	10023887	10023885
Black Hycar	10023858	10023569	10023857	10023882	10023883	10023884

OptimAir MM 2K PAPP Upgrade Kit

Upgrade Kit includes: motor/blower module, NiMH battery, dual-rate battery charger, cable, one Type HE OptiFilter Cartridge, and belt. Use your present demand-style Ultravue or Ultra Elite Facepiece or order facepiece separately from table below.

OptimAir MM 2K Upgrade Kit	10025945
----------------------------	----------

Replacement Facepieces

	Advantage 3100 Single-Port Respirator Facepiece		
	Small	Medium	Large
with Rubber Harness	10028999	10028998	10029000
with Advantage Harness	10031343	10031342	10031344

Material	Ultravue Facepiece			Ultra Elite Facepiece		
	Small	Medium	Large	Small	Medium	Large
Black Silicone	480251	480247	480255	493072	493028	493116
Black Hycar	471218	457126	471230	493064	493020	493108

Replacement Parts

NiMH Battery Pack for OptimAir MM 2K	10023481
Motor/Blower Assembly	10023482
Cable Assembly	10023480
Dual-Rate Battery Charger for OptimAir MM 2K	10023483

OptiFilter® Cartridges for OptimAir MM 2K PAPP

Cartridge	Purifying Protection Code	No. in Box	Part No.
OptiFilter XL, Type HE	HE	20	10042346
OptiFilter XL, Type HE	HE	6	496081

Accessories

OptiFilter XL prefilter/cover assembly to protect the cartridge from water-spray and gross asbestos-containing material	497098
Prefilters, box of 50	493524
Flow-Check Meter	487995
Adapter for Flow-Check Meter, for use with OptimAirMM PAPP	491046
Storage Plug for Type HE OptiFilter XL	

Specifications

Weight

Advantage 3000 Facepiece	16.8 oz.
Ultravue Facepiece	19.2 oz.
Ultra Elite Facepiece	24.0 oz.
Motor/Blower with cable	7.0 oz.
Battery Pack	12.5 oz.
OptiFilter Cartridge	3.7 oz.

Motor/Blower

Approximately 1500 hours

Battery

Nickel Metal Hydride rechargeable battery pack provides 8 hour (one shift) of continuous use.

Life: Up to 1,000 charge/discharge cycles.



Limitations

The OptimAir MM 2K PAPP with Type HE OptiFilter XL Cartridge is approved as a high-efficiency particulate air PAPP.

The OptimAir MM 2K PAPP does not remove vapors or gases from the air. No filter is designed for all concentrations of all substances. Therefore, it is essential to understand what the contaminant is and to know its concentration and explosive limit before selecting a respirator.

The OptimAir MM 2K PAPP does not supply oxygen. Therefore, it should not be used unless the surrounding air contains a minimum of 19.5% oxygen. The respirator may be used in temperatures between 0°F and 120°F (-17°C to 49°C); however, if used in temperatures below 40°F (4.4°C), the fully charged battery will not operate for a full eight hours.

The replaceable filter cartridge, which traps the particulate contaminant, is a minimum of 99.97% efficient against 0.3 micron DOP.

Accessories

Waist Belts

MSA offers an optional polyurethane-coated nylon belt that is easy to decontaminate. If decontamination is not a factor, users may also opt for an uncoated nylon web belt.

Part No.	Description
473902	PVC Waist Belt, standard on OptimAir MM2K PAPR
492827	Polyurethane-coated Nylon Belt
9961	Uncoated-Nylon Web Waist Belt

OptimAir MM 2K Carrying/Storage Case

Black plastic case suitable for carrying/storing the OptimAir MM 2K PAPR.



Part No.	Description
D2056734	Carrying/storage case

Spectacle Kit



For use by workers who must wear corrective lenses, the spectacle kit can be easily inserted into the facepiece. The kit includes a wire support, rubber guide and one pair of metal-frame spectacles.

Part No.	Description
10029298	Prescription Eyeglass Kit for Advantage 3000 Facepiece (S-7 shape, 44 mm lens)
454819	Prescription Eyeglass Kit for Ultravue Facepiece (S-7 shape, 44 mm lens)
804638	Prescription Eyeglass Kit for Ultra Elite Facepiece (S-7 shape, 40 mm lens)

Lens Covers

MSA offers an assortment of facepiece accessories that provide added lens durability or shading for special applications.

Lens covers, either smoke-tinted or clear, provide a convenient way to add a layer of protection against scratches.

Part No.	Description
10031542	Advantage 3000 Clear Lens Covers (25 per package)
10031543	Advantage 3000 Smoke tinted Covers (25 per package)
456975	Ultravue Clear Lens Covers (25 per package)
480326	Ultravue Smoke-tinted Lens Covers (25 per package)
491500	Ultra Elite Clear Lens Covers (25 per package)
805456	Ultra Elite Smoke-tinted Lens Covers (25 per package)

MSA Confidence Plus® Germicidal Cleaner



Mix with warm water for a germicidal cleaner that is effective against various micro-organisms including

immunodeficiency virus Type 1 (HIV-1) (associated with AIDS). EPA-approved for use on safety equipment.

Part No.	Description
10009971	MSA Confidence Plus Germicidal Cleaner in 32 oz. bottle

Approvals and Standards

The OptimAir MM 2K PAPR with either the Ultravue or Ultra Elite Facepiece and OptiFilter XL Cartridge has NIOSH approval TC-21C-0758.

The OptimAir MM 2K PAPR with the Advantage 3100 Series Facepiece and OptiFilter XL Cartridge has NIOSH approval TC-21C-0763.

The filters must be replaced when air flow drops below 4 cfm (115 lpm).

IMPORTANT: The OptimAir MM 2K PAPR is not NIOSH-approved for use with gas, chemical or combination cartridges. Use only Type HE OptiFilter XL Filter.

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



Corporate Headquarters
P.O. Box 426, Pittsburgh, PA 15230 USA
Phone 412-967-3000
www.MSAnet.com

U.S. Customer Service Center
Phone 1-800-MSA-2222
Fax 1-800-967-0398

MSA Canada
Phone 1-800-MSA-2222
Fax 905-238-4151

MSA Mexico
Phone 52-55 21 22 5770
Fax 52-55 359 4330

MSA International
Phone 412-967-3354
Fax 412-967-3451

Offices and representatives worldwide

For further information:

